

PRESS RELEASE

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Scientist's Research Showing Apple Moth a Minor Pest in New Zealand Stands Solid in Face of State's Partial Facts

State Efforts to Discredit Report Rely on Partial and Incorrect Information

Santa Cruz – A University of California scientist who published a report on the Light Brown Apple Moth (LBAM) in New Zealand last month says the state's recent comments on his research overlook significant factual information and rely on analysis of scientists working for the apple moth eradication program.

Dr. Daniel Harder, botanist and Executive Director of the UC Santa Cruz Arboretum, says the state's claim that "until recently, LBAM was the plant pest of greatest impact in New Zealand" ignores the fact that until 2001 New Zealand's use of broad-spectrum organophosphate pesticides killed both LBAM and its natural predators. "It caused the 'greatest impact' because of the U.S.'s import restrictions on produce not because of any physical damage," Harder says. The U.S.'s zero-tolerance of any evidence of LBAM in a shipment of produce was the problem for New Zealand growers, not any damage to crops or plants.

The state's attempt to discredit the report by Harder and co-author Jeff Rosendale also falsely asserts that the report advocates introduction of non-native predators to California to control LBAM.

"Our report does not advocate the introduction of any biological control organism for LBAM. These control organisms are already present in California, Harder says. "In New Zealand, we were told that once organophosphate pesticides were no longer used, the populations of beneficial insect predators recovered to levels necessary for effective control of LBAM in just two years. California has an abundance of enemies and beneficial organisms that control the 300+ species of Tortricid moths here. Due to the similarity of LBAM to these other moths, these enemies will also control LBAM populations and have for many decades. That is why we do not see damage from LBAM anywhere in California – in agriculture or in native forests."

The state's criticism that the Harder-Rosendale report's "approach is inadequate given the significant environmental and crop production differences between New Zealand and California," if accurate, calls into question the state's own heavy reliance on a single scientist from New Zealand, Dr. Max Suckling, who is testing new formulations of LBAM pesticides in New Zealand for the CDFA.

"The approaches for LBAM control developed in New Zealand and presented in our report are completely adequate for California agricultural systems. Our report is a scientifically sound and factually accurate document representing the state-of-the-art technology developed by New Zealand scientists to effectively control LBAM," says Harder. "Unfortunately for CDFA/USDA, it presents information that is counter to the ineffective eradication effort they are undertaking.

The state's concern about LBAM becoming established "in other parts of California, and in other States" is unfounded according to Harder and Rosendale.

"If all the places LBAM is presently found (in most areas for more than a century) report only minor damage from LBAM, there is little to make anyone believe that this insect will ever be more of a problem than it has proven to be in California where there has been no reported damage to agricultural or natural

areas even though the moth has likely been here for decades.”

In response to the allegation that Harder and Rosendale’s research visit to New Zealand did not correspond with LBAM’s most active period, Harder notes that “according to the phenological monitoring data shown us in New Zealand, the timing of our visit should have coincided with good populations of LBAM in agricultural and natural vegetation areas.”

The state’s claim that the Harder-Rosendale "account of the LBAM situation in New Zealand fails to recognize the natural resistance of New Zealand's native plants and bio-control program developments that have just recently resulted in the reduction of this pest's impact on the country's agricultural sector" elicits this response from Harder: “We disagree that there is an enhanced natural resistance in the New Zealand flora compared to California. New Zealand has been isolated from any continent for a very long time. Plants that arrived and evolved there lost their resistance to many pest and diseases. Compared to the flora of California that has had continuous pressure from pests and diseases including Tortricid moth damage, New Zealand has less resistance. California, because it is not isolated by an ocean and is part of a larger land mass, has had an opportunity to develop co-adapted associations with enemies to the more than 300 species of Tortricid moths in California. These native and natural enemies will also control LBAM as they have for many decades in California.”

Harder adds, “Our report heralds the positive progress New Zealand researchers have made in effectively controlling this insect in agriculture using IPM practices of close monitoring and judicious use of targeted pesticides. The California Department of Food and Agriculture needs to adopt these control measures in agriculture to mitigate any impact due to export controls.”

Commenting on the state’s latest attempt to discredit Harder and Rosendale’s report, Nan Wishner, Chair of the City of Albany’s Integrated Pest Management Task Force asked: “Why is the state expending so much effort trying to discredit this basic research that they themselves should have done before embarking on a sweeping eradication campaign?” The fact that the group of ‘experts’ levying these criticisms all work for or are funded by USDA or CDFA underscores once again the state’s failure to rely on independent scientists who are not committed to the foregone conclusion that eradication by aerial spraying is the only solution.”

Harder adds, “The report is an extremely useful document for educating people to the alternatives available to aerially applied chemicals and points out the futility of any attempted eradication while exposing the ‘paper status’ of LBAM as a quarantine pest for trade reasons, not biological reasons.”

UC Davis entomologist and invasive species expert Dr. James Carey comments, “It is to Dr. Harder’s and Mr. Rosendale’s credit to have prepared such a thorough report that is not only based on a careful search of the scientific literature, but on a three-week fact-finding trip to New Zealand where LBAM is indigenous. This is the kind of careful science that CDFA should have undertaken before launching their eradication program. The Harder-Rosendale report and its conclusions should be taken seriously by CDFA, USDA, and the public at large.”

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